How to Build a Fire

Fire is made up of 3 basic elements: heat, oxygen and fuel. These elements create the fire triangle. Fuel consists of tinder, kindling and chopped wood. The first step to make a fire is to make a loose tinder bundle. Step two is to build a teepee of kindling. Next you light the tinder bundle and provide oxygen. Lastly, feed the fire gradually with branches and eventually large firewood. Be sure to put the fire out completely before leaving the area.

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The Fire Triangle
Fire Triangle

Heat, oxygen and fuel make up the fire triangle, also known as the combustion triangle. These ingredients are needed to build most fires.

Heat
Heat Source

Heat sparks the flame of the fire. Heat sources can be chemical based, like a lighter or a match, or friction based like a farrow rod, rocks or bow drill.

Oxygen
Oxygen

Fire needs enough oxygen to sustain combustion. Without oxygen, the flames of the fire cannot breath and will die off. Ambient air is made up of approximately 21% oxygen. Most fires only require about 16% oxygen to burn. As such, air acts as the oxidising agent in the chemical reaction of a flame. So when the fuel burns, it reacts with the oxygen to release heat and generate combustion.

Fuel
Tinder, Kindling and Chopped Wood

Fuel is combustible material that feeds the flames of the fire. Fuel usually consisted of tinder, kindling, and chopped wood.

Tinder
Paper, Dry Debris, Pine Needles, Leaves and Cotton

Tinder is the smallest of the fuel materials and is used to make up a loose tinder bundle in the first step of the fire building process. Tinder can be dry paper, dry debris, pine needles, leaves or cotton.

Kindling
Small Sticks and Branches

Kindling usually consists of small sticks and branches. It is flammable material that is slightly larger than tinder and is used to create a teepee above the tinder bundle.

Chopped Wood
Chopped Wood

The last and most obvious type of fuel is chopped wood. Larger logs of wood are essential for a roaring, long lasting fire.

Step 1

Make a Loose Tinder Bundle
Loose Tinder Bundle

A loose tinder bundle can be made by laying your tinder fuel items in a small pile on the ground. It should look somewhat like a bird's nest and have plenty of small open areas throughout the bundle for oxygen to breath through. This can be done by fluffing the bundle so that it is not too compact.

Step 2

Build a Tepee of Kindling
Tepee of Kindling

To build a teepee of kindling, lay the kindling branches in a triangular shape above the loose tinder bundle. Leave an opening in your teepee on the side the wind is blowing against. This will ensure that your fire gets the oxygen that will feed through the structure.

Step 3

Light Tinder Bundle
Lighter and Tinder Bundle

Now is the time to spark the tinder bundle with your choice of heat source. Lighting the bundle can be as easy as using a lighter or a match or as primitive as striking two rocks together.

Provide Oxygen
Blowing to Build Flame

Once a flame is ignited, provide oxygen to the flame by blowing on it. Because the kindling lays above the tinder, the flames should build up toward the teepee structure of kindling and light it on fire as well.

Step 4

Feed Fire Gradually with Branches then Firewood
Adding Branches and Logs

Now that the fire is lit, build the fire by adding larger branches and eventually chopped firewood. Always ensure that there are gaps between logs as you go so that oxygen is able to course through the fire and feed the flames.

Considerations

Put Fire Out Completely
Bucket of Water

It is absolutely vital that you put the fire completely out when you are done. Be diligent and take your time. Don't simply pour a bucket of water on it and call it a day. Sprinkle water on the fire to start the process. As you sprinkle water over the embers, stir them with a stick or shovel. You'll know the fire is completely extinguished when you cannot hear any hissing sounds or see any steam and the ground cool to the touch with the back of your hand.